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Langlotz Patent Works, Inc.				
Bennet K. Langlotz, Patent Attorney				
P.O. Box 759				
Genoa, NV 89411				
			EXAMINER	
			HAMMOND, BRIGGITTE R	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,147

Applicant(s)

DELESSERT ET AL.

Examiner

Brigitte R. Hammond

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-19, 21-26, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) 8, 20 and 27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claims 13, 16, 17 and 19 are objected to because of the following informalities: claims 16 and 17 recite "the first and second portions". There is insufficient antecedent basis for this limitation in the claims. Therefore in line 1 of claims 16, 17 and 19, change numeral "14" to - 15- .

Regarding claim 13, in line 1 changed "each" to - the- .

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear to the examiner exactly what the applicant is trying to convey with "the second component has a length double it's diameter". There is insufficient antecedent basis for "the second component".

Claim 18 was not examined in view of art.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6,9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadwin et al. 4,739,259 in view of Bender et al. 4,209,742 . Regarding claims 1 and 5, Hadwin discloses the invention substantially as claimed. Hadwin discloses an electrical probe 12 comprising: a conductive sleeve 44 defining a bore; a probe pin 26 received in the bore; the probe pin having a metal free end contact tip 30 extending in a first direction; the probe pin being biased (spring loaded) in the first direction; and the probe pin including an electrical component 34. Hadwin does not disclose the electrical component serially intervening between the free- end contact tip and an opposed end of the pin. However, Bender et al. discloses a probe 10 having electrical components (col. 2, lines 50-58) serially intervening between a free-end contact tip 16 and an opposed end 21 of the pin. Therefore, it would have been obvious to one of ordinary skill to modify the probe pin of Hadwin by providing an electrical component serially intervening between the free- end contact tip and an opposed end of the pin as taught by Bender et al. to minimize stray capacitance effects.

Regarding claims 2-4, the electrical components on Hadwin and Bender et al. include a resistor and capacitor in parallel.

Regarding claim 6, the first and second portions of Hadwin are not insulated. However, Bender et al. discloses first and second portions electrically isolated by insulator 22. Therefore, it would have been obvious to one of ordinary skill to modify the connector of Hadwin by providing the first and second portions with an insulator for electrical insulation as taught by Bender et al.

Regarding claims 9 and 10, Hadwin and Bender et al. disclose the invention substantially as claimed except for the second portion of the pin having a length less than double its diameter or less than 0.50 inch. However, it would have been obvious to one of ordinary skill to modify the probe pin of Hadwin by providing the second portion of the pin having a length less than double its diameter or less than 0.50 inch or any other size for design specifics for a client, *since it has been held that the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.*

Claims 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calma et al. in view of Bender et al. Regarding claim 15, Calma et al. disclose the invention substantially as claimed. Calma et al. discloses each pin having first and second conductive portions 19, 22. Calma et al. do not disclose the component being between the first and second portions. However, Bender et al. discloses a probe 10 having electrical components (col. 2, lines 50-58) serially intervening between a free-end contact tip 16 and an opposed end 21 of the pin. Therefore, it would have been obvious to one of ordinary skill to modify the probe pin of Calma et al. by providing an electrical component between the free- end contact tip and an opposed end of the pin as taught by Bender et al. to minimize stray capacitance effects.

Regarding claim 13, Calma et al. do not disclose the component being a capacitor and resistor in parallel. However, Bender et al. teach the combination of a capacitor and resistor in parallel. It would have been obvious to one of ordinary skill to

modify the connector of Calma et al. by providing a capacitor and resistor in parallel to compensate frequency as taught by Bender et al.

Regarding claim 16, the first and second portions of Calma et al. are not insulated. However, Bender et al. discloses first and second portions electrically isolated by insulator 22. Therefore, it would have been obvious to one of ordinary skill to modify the connector of Calma et al. by providing the first and second portions with an insulator for electrical insulation as taught by Bender et al.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Calma et al. and Bender et al. as applied to claim 15 above, and further in view of Hadwin et al. 4,739,259. Calma et al. disclose the probes being arranged at a first pitch distance. Neither Calma et al. nor Bender et al. disclose the second portion of the pin having a length less than the first pitch distance. However, Hadwin et al. disclose a pin probe having first and second portions 30,28 respectively, wherein the second portion of the pin has a length less than the first pitch distance between probes 12,14.

Claims 24,25,28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadwin et al. in view of Bender et al. Hadwin et al. discloses the invention substantially as claimed. Hadwin et al. do not disclose the electrical component being connected between the first and second portions. However, Bender et al. discloses a probe 10 having electrical components (col. 2, lines 50-58) serially intervening between a first portion 16 and a second portion 21 of a pin. Therefore, it would have been obvious to one of ordinary skill to modify the probe pin of Calma et al.

by providing an electrical component between first and second portions of the pin as taught by Bender et al. to minimize stray capacitance effects.

Regarding claim 25, Bender et al. discloses first and second portions electrically isolated by insulator 22. Therefore, it would have been obvious to one of ordinary skill to modify the probe of Hadwin et al. by providing the first and second portions with an insulator for electrical insulation as taught by Bender et al.

Regarding claims 28 and 29, Hadwin and Bender et al. disclose the invention substantially as claimed except for the second portion of the pin having a length less than double its diameter or less than 0.50 inch. However, it would have been obvious to one of ordinary skill to modify the probe pin of Hadwin by providing the second portion of the pin having a length less than double its diameter or less than 0.50 inch or any other size for design specifics for a client, *since it has been held that the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.*

Claims 7 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadwin et al. and Bender et al. as applied to claims 5 and 24 above, and further in view of Calma et al. Hadwin et al. nor Bender et al. disclose the first and second portions each having a flange. However, Calma et al. disclose a probe pin with first and second portions 19,22 each having a flange (not numbered, see fig.2, area between 18 and 19' and area between 11 and 22), the flanges being spaced apart and connected (electrically) to the electrical component 8. Therefore, it would have been obvious to one of ordinary skill to modify the probe of Hadwin et al. and Bender et al.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 12, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Calma et al. 4,904,935. Calma disclose an electrical connector 10 comprising a body 4, a plurality of probes 30 connected to the body, each probe having a spring biased pin with a metal contact tip 18; and each pin including an electrical component 8 proximate the tip and serially intervening between the tip and an opposed end of the pin.

Regarding claim 12, the body 4 is a circuit board having a periphery, and wherein each of the tips extends beyond the periphery.

Regarding claim 14, each pin is received in a sleeve 36 mounted electrically connected to a conductor 31 on the body, and wherein each pin axially reciprocates with in the sleeve.

Regarding claim 17, second portions each have a flange, the flanges being spaced apart and connected to the electrical component.

Claim 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Hadwin et al. 4,739,259. Regarding claim 21, Hadwin et al. disclose an electrical probe 12 comprising: a conductive sleeve 44 defining a bore; a probe pin received in the bore;

the probe pin having a free end contact tip 30 extending in a first direction; the probe pin being biased (spring loaded) in the first direction; and the probe pin including a capacitor (on 34).

Regarding claim 22, the probe pin also includes a resistor having substantially greater resistance than the pin (col. 2, lines 60-65).

Regarding claim 23, the capacitor is connected in parallel with the resistor.

Allowable Subject Matter

Claims 8,20, 27 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: regarding claim 20, patentability resides, at least in part in the connector having a cable connected to the body, such that each of a plurality of conductors of the cable is independently connected to each probe, in combination with the other limitations of the base claim; regarding claims 8 and 27, patentability resides, at least in part, in the probe having a cylindrical sleeve encompassing the flanges and the electrical component, in combination with the other limitations of the base claim.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nieto, Jr. 4,418,314, Golden et al. 5,196,789, Kamiya 5,942,701, Whiteman 6,407,562, Kimbley 6,688,906, Sirattz 5,103,165 were cited for similar probes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brigitte R. Hammond whose telephone number is 571-272-2006. The examiner can normally be reached on Mon.-Thurs. and Alternate Fridays from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on 571-272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brigitte R. Hammond
Examiner
Art Unit 2833

December 11, 2004